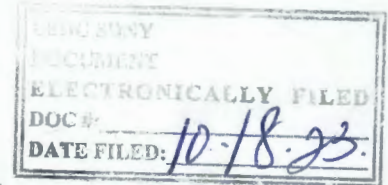**UNITED STATES DISTRICT COURT**
SOUTHERN DISTRICT OF NEW YORK

EDMAR FINANCIAL COMPANY, LLC;
IRISH BLUE & GOLD, INC.; and XTX
MARKETS LIMITED,

          Plaintiffs,

vs.

CURRENEX, INC.; GOLDMAN SACHS &
CO. LLC; HC TECHNOLOGIES, LLC;
STATE STREET BANK AND TRUST
COMPANY; STATE STREET GLOBAL
MARKETS INTERNATIONAL LIMITED;
and JOHN DOE DEFENDANTS 1-5,

          Defendants.

Case No. 21-cv-06598

**STIPULATED AGREEMENT AND
[~~PROPOSED~~] ORDER REGARDING
PROTOCOL FOR ELECTRONICALLY
STORED INFORMATION**

Plaintiffs Edmar Financial Company, LLC, Irish Blue & Gold, Inc., and XTX Markets Limited ("Plaintiffs") and Defendants Currenex, Inc., Goldman Sachs & Co. LLC, HC Technologies, LLC, and State Street Bank and Trust Company ("Defendants," and together with Plaintiffs, the "Parties") hereby agree to this stipulated agreement regarding protocol for electronically stored information and respectfully request that the Court enter an Order approving the same.

1. Definitions.

    a. "Action" means the above-captioned matter, and any and all cases consolidated or coordinated with it.

    b. "Custodian" means the individual or originating source from which Documents or ESI will be collected.

    c. "Document" and "Electronically Stored Information" ("ESI") shall have the same meaning as the usage of these terms in Civil Rule 26.3(c)(2) of the Local District Rules and Federal Rule of Civil Procedure 34(a)(1)(A).

    d. "Email" means an electronic means for sending, receiving, and managing communications via different applications (email client software), including but not limited to Microsoft Outlook, Google Gmail, Yahoo! Mail, or Lotus Notes, and the file created or received by such means, though the inclusion of any platform,

program, client, or software as an example herein will not obligate any Party to collect such ESI.

e. "Extracted Text" means the text extracted from an electronic Document, and includes all header, footer, and Document body information, including any hidden content, when available.

f. "Instant Messages" means communications involving immediate correspondence between two or more users sent via chat client or SMS, including but not limited to Bloomberg Chat, Reuters Messenger, Reuters Dealings, Google Talk, WhatsApp, Yahoo! Messenger, AOL Instant Messenger, Blackberry Messenger, ICQ, Pidgin, Line, Audium, Trillian, or any proprietary instant messaging system, though the inclusion of any platform, program, client, or software as an example herein will not obligate any Party to preserve or collect such ESI.

g. "Load File" means an electronic file containing information identifying a set of paper-scanned images or processed ESI and indicating where individual pages or files belong together as Documents, including attachments, and where each Document begins and ends. A Load File will also contain data relevant to the individual Documents, including extracted and user-created Metadata, as well as links to OCR or Extracted Text, should such data be available, and links to Native Files where such files are included in a Production.

h. "Media" means an object or device, including but not limited to, a disc, tape, external hard drive, computer, or other device, on which data is or was stored.

i. "Metadata" means (i) information associated with or about a file that is produced and maintained by the application that generated, edited, or modified such native file which describes the characteristics, origins, or usage or validity of the electronic file; and (ii) information generated automatically by the operation of a computer or other information technology system when a native file is created, modified, transmitted, deleted, saved, or otherwise manipulated by a user of such system.

j. "Native Format" means and refers to the file structure of a Document created by the original creating application (in contrast to a Static Image, which is a representation of ESI produced by converting a native file into a standard image format capable of being viewed and printed on standard computer systems, such as .tiff or .pdf).

k. "OCR" means optical character recognition technology which is created by software used in conjunction with a scanner that is capable of reading text-based paper/hard copy Documents and making such Documents searchable using appropriate software.

l. "Personally Identifiable Information" or "PII" means social security numbers and other personal identifying numbers, names of minor children, dates of birth, home addresses, personal financial account numbers, medical records and/or other

2

protected health information that is not relevant to the underlying claims or defenses herein.

m. "Predictive Coding/Technology Assisted Review" shall mean processes for prioritizing or coding a collection of Documents using computerized systems, such as machine-learning algorithms, that may rely on the judgments of one or more attorneys experienced in the subject matter of a litigation regarding the responsiveness of a subset of Documents and extrapolates those judgments to the remaining Document collection. For purposes of this Protocol, Predictive Coding/Technology Assisted Review is synonymous with computer-assisted review, computer-aided review, and content-based advanced analytics or other terms used to refer to search methodologies that rely on machine-based learning to identify Responsive Documents.

n. "Producing Party" means the Party requested to produce Documents or ESI.

o. "Production" means any exchange of Documents or ESI between the Parties, whether voluntarily or in response to a formal or informal request.

p. "Requesting Party" means the Party requesting Documents or ESI.

q. "Responsive Document" refers to any Document that is responsive to any discovery request or subpoena served on the Producing Party in the Action and which the Producing Party has agreed or been ordered to produce, subject to the limitations set forth in the Federal Rules of Civil Procedure, Court order, and/or any applicable legal privilege or protection.

r. "Search Term" means a combination of words and phrases designed to capture potentially relevant ESI, and includes strings of words and phrases joined by proximity and Boolean connectors.

s. "Static Image" means or refers to a representation of ESI produced by converting a native file into a standard image format capable of being viewed and printed on standard computer systems. A Tagged Image File Format ("TIFF") image is an example of a Static Image.

t. "Structured Data" means ESI stored in a structured format, such as databases or data sets according to specific form and content rules as defined by each field of the database.

u. "Text File" means a file containing the full multi-page text of native or near-native files extracted directly from the electronic file, or, in the case of paper/hard copy Documents subject to OCR, a file containing the text resulting from the OCR.

v. "Unstructured Data" refers to free-form data which either does not have a data structure or has a data structure not easily readable by a computer without the use

of a specific program designed to interpret the data, such as word processing Documents, slide presentations, Email, and image files.

2. General Terms. This stipulated and so-ordered agreement (the "Stipulation and Order") governs the discovery of ESI in this Action. The Parties will take reasonable steps to comply with this agreed-upon protocol for the Production of Documents and ESI ("Protocol"). This Stipulation and Order incorporates the Federal Rules of Civil Procedure and the Local Rules for the Southern District of New York regarding the management of ESI, and, as set forth herein, supplements those sources of authority. This Stipulation and Order is intended to be and should be construed in a manner consistent with those Federal and Local Rules. The failure of this Protocol to address any particular issue is without prejudice to any position that a Party may take on that issue.

3. Confidentiality. All Productions made pursuant to this Protocol are subject to the Stipulated Confidentiality Agreement and Protective Order ("Confidentiality Order"), any further protective orders or other orders entered in these Proceedings, and Federal Rules of Civil Procedure 26(b)(5), (c).

4. Limitations and Non-Waiver. The Parties and their attorneys do not intend by this Protocol to waive their rights to any protection or privilege arising under the laws of any jurisdiction, including the attorney-client privilege, the bank examiner privilege, the work-product doctrine, and any foreign data privacy, bank secrecy, state secrecy or other similar laws. All Parties preserve all such privileges and protections, and all parties reserve the right to object to any such privileges and protections, including but not limited to the bank examiner privilege. The Parties and their attorneys are not waiving, and specifically reserve, the right to object to any discovery request on any grounds. Further, nothing in this Protocol shall be construed to affect the admissibility of Documents and ESI. All objections to the discoverability or admissibility of any Documents and ESI are preserved and may be asserted at any time.

5. Preservation.

   a. The Parties agree that they shall continue to take reasonable steps to preserve relevant Documents and ESI that may exist, in accordance with their obligations under applicable law. By preserving or producing information for the purpose of this Action, the Parties are not conceding that such material is discoverable, relevant, or admissible.

   b. This Stipulation and Order does not obligate any Party to segregate or collect potentially relevant Documents unless the Party has a reason to anticipate that, absent such actions, relevant information is likely to be lost during the pendency of this matter.

6. Documents Previously Produced. There is no presumption under this Protocol that any Party must re-process or recollect Documents (including data and metadata fields) that have been processed or collected prior to the date of this Order for use in (i) this Action, (ii) any related action, or (iii) investigations concerning the subject matter of this Action.

4

However, to the extent any Party has produced or intends to produce Documents in this Action that originally were collected or produced in other cases or government investigations and that do not comply with the requirements of this Protocol, and metadata for such Documents (as specified in this Protocol) can be produced in whole or in part without undue burden, such metadata shall be produced in the form of an overlay file that contains the Bates number of the document as originally produced and the additional metadata fields. The overlay file should be formatted in the same way as the Concordance data load file described herein. To the extent any Party believes it would be unduly burdensome to produce an overlay file formatted in the same way as the Concordance data load file described herein, the parties shall meet and confer to attempt to arrive at a suitable solution. If no informal solution can be reached, the Requesting Party may seek the Court's assistance.

7. Production Format. Unless otherwise ordered by the court or agreed to by the Parties, the Parties shall produce Unstructured Data and non-ESI in accordance with the annexed ESI Production Specifications (annexed as Appendix A).

8. Privilege Logs.

   a. The Parties will log any fully or partially withheld responsive privileged material, including Documents produced as withheld for privilege slip-sheets, with the exclusion of the following categories:

      i. The Parties will not log privileged material that post-dates the complaint, filed on August 4, 2021, provided however, that the Parties will meet and confer with respect to any specific categories of documents for which the Parties believe an exception is warranted.

      ii. The Parties will not log, in the first instance, partially redacted Documents, provided that the basis for the redaction (e.g., privilege type) is listed on the redacted document itself and the unredacted portion of the Document and/or the DAT file provides the factual information that would otherwise appear on a log. The Requesting Party has the right to request that the partially redacted Document be logged where it does not believe that the unredacted portion of the Document and/or the DAT file provides sufficient information to support the claim of privilege. If the Requesting Party makes such a request, subject to meeting and conferring to the extent that there are any concerns about burden and timing, then the Party who redacted the Document shall log the partially redacted Document, it being understood that the Party requesting the logging of the partially redacted Document will only request that the partially redacted Document be logged where the Party believes, in good faith, that the face of the Document does not provide sufficient information to support the claim of privilege. The Parties will log partially redacted documents within 14 days of the Requesting Party's request (or by a deadline to be agreed between the Parties), except that in no event will any Party be required to provide a privilege log before the deadline to produce privilege logs as provided in this Stipulation and Order.

5

> To the extent a Party logs a partially redacted Document, the Party is permitted to describe the withheld information in a single entry on the privilege log even if the Document contains multiple privilege redactions, rather than separately logging each redaction.

b. The Parties will log only the topmost (last in time) Email in a chain.

c. The Parties agree to provide a privilege log with the following automated fields, if available, for each withheld Document; provided, however, that any field containing privileged information may be redacted/revised:

  i. Privilege Log ID

  ii. Bates Begin (if applicable)

  iii. File Type

  iv. DateTime Sent

  v. DateTime Modified

  vi. DateTime Created

  vii. Author

  viii. From

  ix. To

  x. Cc

  xi. Bcc

  xii. Subject

  xiii. Title

  xiv. Privilege Type (e.g., ACC, AWP)

  xv. Privilege Category (i.e., categorical description of subject matter withheld)

d. The Parties agree to exchange privilege logs not later than 45 days after the date identified in the Scheduling Order (ECF No. 98) for substantial completion of production of documents. If the deadline for substantial completion of production of documents is delayed by the Parties' agreement or the Court's order, the Parties agree to exchange privilege logs not later than 45 days after the newly agreed upon deadline for substantial completion of production of documents. In the event that a Party makes a Production after the deadline for substantial completion of

production of documents, the Producing Party will deliver an updated privilege log to Parties within 45 days of such Production. If the Producing Party becomes aware that it will need more time to comply with any of the aforementioned privilege log deadlines, it will promptly notify the Requesting Party and the Parties shall meet and confer in good faith on a revised deadline.

e. The Requesting Party shall have 30 days after the Production of a privilege log to raise any privilege log issues with the Producing Party. To the extent such notice is made, the Parties shall meet and confer in good faith in an effort to resolve the issues raised. If a Party requires further information to evaluate a claim of privilege, it shall, within 30 days after the log's Production, explain with specificity in writing the need for such information. Within 21 days of such request, the Producing Party must either (i) provide the requested information or (ii) challenge the request. If a Party challenges a request for further information, the Parties shall meet and confer to try to reach a mutually agreeable solution within 21 days of any such challenge and prior to seeking any relief from the Court pursuant to the Court's Individual Rules of Practice.

9. Redactions.

a. The Parties may apply redactions to information where required by foreign data privacy, bank secrecy, state secrecy or other similar laws. In advance of making any such redactions, the Parties will meet and confer to attempt to reach agreement as to (i) the circumstances in which such redactions will be made and whether providing anonymized or other information for redacted content is appropriate; and (ii) a protocol for the identification of the reason for each redaction, which need not be separately logged. To the extent agreement cannot be reached, a Party may raise the issue with the Court pursuant to the Court's Individual Rules of Practice.

b. As a general matter, non-responsive redactions shall not be made. However, within an otherwise responsive Document, non-responsive content may be redacted if it contains: (i) privileged information; (ii) PII; or (iii) information protected by any foreign data privacy, bank secrecy, state secrecy or other similar laws. Redactions applied shall be labeled with the privilege type or basis for the redaction, and the redaction Metadata field shall be populated to indicate the Document has been redacted and the basis for the redaction (e.g., Redacted-Privilege, Redacted-PII).

c. To the extent a Party has produced or intends to produce Documents that were originally processed or collected for another case or government investigation, and did not identify or otherwise track the reasons for any redactions made in such Documents, the Parties will meet and confer about what information is reasonably available about the basis for the prior redactions.

10. Identification of Responsive Documents.

a. The Parties shall meet and confer in good faith to come to an agreement on search methods used by the Producing Party to identify Responsive Documents and ESI,

including: (i) Custodians; (ii) Search Terms; (iii) date ranges that may be applied to filter Documents and ESI; and (iv) any other advanced search methodology or Technology Assisted Review. Subject to the disclosure and meet-confer requirements set forth in Paragraph 11 below, the Producing Party shall retain the presumptive right and responsibility to manage and control searches of its data files, including the right to use an advanced search methodology or Technology Assisted Review, and to propose revisions to such methodologies in order to make them more accurate and/or cost-effective.

b. The fact that a Document or ESI is identified by use of a Search Term or identified as potentially responsive by any other technology used to identify potentially Responsive Documents and ESI shall not prevent the Producing Party from withholding such file from Production on the grounds that the file is not responsive or that it is protected from disclosure by applicable privilege or work-product protection, or by any foreign data privacy, bank secrecy, state secrecy or other similar laws.

11. Review and Technology Assisted Review. The Producing Party has the right to fully review its ESI for responsiveness, privilege, confidentiality, and PII prior to production of responsive, non-privileged documents. In addition, the Producing Party may use any appropriate tool or technology to conduct its review, including Technology Assisted Review, as long as the review satisfies the Producing Party's Rule 26(g) obligations. Provided, however, that no party shall use Predictive Coding/Technology Assisted Review for the purpose of culling the documents to be reviewed or produced without notifying the opposing party prior to use and with ample time to meet and confer in good faith regarding a mutually agreeable protocol for the use of such technologies.

12. Structured Data. For requests in which responsive information is contained in a database or other structured or aggregated data source or otherwise maintained by an application, the Parties will use reasonable best efforts to produce the data and will meet and confer to determine an appropriate format. If the Parties cannot reach agreement, the matter may be submitted to the Court for resolution.

13. Parent-Child Relationships. The Parties agree that if any part of a Document or its attachments is responsive, the entire Document and attachments will be produced, except any attachments that may be withheld or redacted on the basis of any (i) privileged information; (ii) PII; or (iii) information protected by any foreign data privacy, bank secrecy, state secrecy or other similar laws. Any attachment withheld pursuant to this Section shall be replaced with a single page Bates-stamped TIFF image slip-sheet reflecting the Producing Party's confidentiality designation and basis for withholding the Document (e.g., Privilege, Attorney Work Product). The Parties shall further take reasonable steps to ensure that parent-child relationships within a Document family (the association between an attachment and its parent Document) are preserved. The child-Document should be consecutively produced immediately after the parent-Document.

14. Hyperlinks in Produced Documents. Within a reasonable time following production, the Receiving Party may make reasonable and specific requests for the Producing Party to use
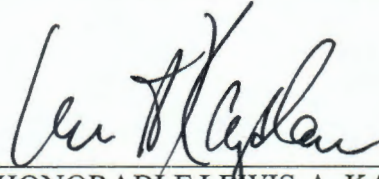
reasonable efforts to investigate and assess the feasibility of gathering reasonably available and accessible documents that are hyperlinked in produced documents provided to the Receiving Party. Upon receipt of reasonable and specific requests, the Producing Party shall use reasonable efforts to investigate and report on its findings as to the feasibility, practicability, and burden of retrieving the requested hyperlinked documents and the Parties shall meet and confer regarding any retrieval efforts. For the avoidance of doubt, this section does not require a Producing Party to undertake any burden or expense to identify or retrieve hyperlinked documents prior to receiving reasonable and specific requests from the Receiving Party after production of documents containing hyperlinks to the Receiving Party, and meeting and conferring with the Receiving Party about the requests.

15. <u>Document Types Requiring Special Handling</u>. The parties will negotiate in good faith regarding the protocols for the production of other materials that may require special handling—such as, without limitation, audio recordings and video files—if such document types become relevant during the course of discovery.

16. <u>Costs</u>. Pursuant to Federal Rule of Civil Procedure 26, the Parties generally presume that the Producing Party bears all costs of preservation, retrieval, and Production of its reasonably accessible ESI, and there may be cost-sharing or cost-shifting upon agreement of the Producing and Requesting Parties or upon proper motion and Order of the Court, as to ESI that is not reasonably accessible.

17. <u>Non-Party Documents</u>. A Party that issues a non-party subpoena ("Issuing Party") shall include a copy of this Protocol with the subpoena and state that the Parties to the Action have requested that third parties produce Documents in accordance with the specifications set forth herein. Within five business days of receipt, the Issuing Party shall produce any documents obtained pursuant to a non-party subpoena to all other Parties in the format in which they were received from the non-party. Nothing in this Protocol is intended to or should be interpreted as narrowing, expanding, or otherwise affecting the rights of the Parties or non-parties to object to a subpoena.

18. <u>Authentication</u>. The Parties will meet and confer regarding an authentication stipulation concerning Documents produced in this Action.

19. <u>Subsequently Joined Parties</u>. Parties joined to this Action after the entry of this Stipulation and Order shall presumptively be subject to its terms, however, subsequently joined parties may seek modification of this Stipulation and Order either through further written agreement of all Parties, or upon a showing of good cause, by application to the Court on notice to the other Parties.

20. <u>Process for Amending</u>. This Stipulation and Order may be changed only by further written agreement of all Parties or, upon a showing of good cause, by application of the Court on notice to the other Parties.

21. <u>Data Security</u>. The Parties shall use reasonable measures to transfer, store, and maintain the Documents and ESI exchanged in this Action to prevent any unauthorized disclosure

9

and maintain the security and integrity of electronic data and files. In the event of a data breach affecting a Producing Party's Documents, the party experiencing the breach shall promptly notify the Producing Party of the event and cooperate with the Producing Party to provide timely information regarding the scope of the breach and solutions to cure the breach.

IT IS SO ORDERED.

DATED: __10/18/23_____

_____
THE HONORABLE LEWIS A. KAPLAN
UNITED STATES DISTRICT JUDGE

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Appendix A - ESI Production Specifications

If compliance with these specifications is not possible or would cause undue burden, the Parties should meet and confer to discuss and confirm the format of Production *prior to* Production.

1. *Non-ESI / Hard Copy Documents*. Hard copy Documents should be scanned as single-page, Group IV, 300 DPI TIFF images with an .opt image cross-reference file and a delimited database Load File (*i.e.*, .dat). The database Load File should contain the following fields: "BEGNO," "ENDNO," "PAGES," "VOLUME," "CUSTODIAN," and "CONFIDENTIALITY." The Documents should be logically unitized (*i.e.*, distinct Documents shall not be merged into a single record, and single Documents shall not be split into multiple records) and be produced in the order in which they are kept in the usual course of business. If an original Document contains Post-it notes or other detachable notes that obscure the underlying Document, the Document should be scanned once with the detachable note intact and once without it, and the images should be made part of the same Document. If an original Document contains color, and the Producing Party determines that color is necessary to understand the meaning or content of the Document, the Document shall be produced as single-page, 300 DPI JPG images with JPG compression and a high-quality setting as to not degrade the original image. Multi-page OCR text for each Document should also be provided. The OCR software shall maximize text quality. Settings such as "auto-skewing" and "auto-rotation" should be turned on during the OCR process.

2. *Unstructured Data General Specifications*. Unless otherwise specified, Unstructured Data should be converted and produced as single page group IV TIFF files (or color JPGs only when requested) with a corresponding Opticon Load File.[1] A unique Production number ("Bates number") should be branded on each TIFF image. Spreadsheet files shall be produced in Native Format. TIFFs/JPGs will show any and all text, hidden content, and images that would be visible to the reader using the native software that created the Document. For example, TIFFs/JPGs should include the BCC line of Email messages and display comments and hidden content of Documents. If the image does not accurately reflect the Document as it was kept in the usual course of business, including all comments, edits, tracking, etc., the parties agree to meet and confer in good faith on Production format options.

3. *Native File Format*. Microsoft Excel and other spreadsheet files, Microsoft Access and other database files, Microsoft PowerPoint and other presentation files, photos and graphic images, as well as audio, video, and animation files shall be produced in native format, provided, however, that files that can be converted to TIFF (such as PowerPoint, photos,

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[1] For loose electronic Documents, if a different format other than the Email and attachments format is contemplated, the Parties should meet and confer to discuss and confirm the format of Production *prior to* Production. For any social media, data stored in cloud environments (*e.g.*, Dropbox, Google Drive, One Drive, etc.), database, proprietary system Productions, or any other file type not listed, the Parties should meet and confer to discuss and confirm the format of Production *prior to* Production.

and graphic images) should be produced in both TIFF and native format. In addition, any file that is specifically requested in Native Format or that cannot be converted to TIFF should be produced in its original Native Format with a link to the native file included in the Native Link field within the .DAT file. A Bates-stamped, single page TIFF placeholder indicating that the file was produced natively ("PRODUCED IN NATIVE ONLY") should be included as the corresponding image for the file that cannot be converted. The Producing Party will also brand any confidentiality or similar endorsements in the lower left-hand corner of the placeholder. The native file should be renamed to reflect the Bates number assigned to the corresponding TIFF placeholder. The Requesting Party may ask for certain other ESI initially produced in TIFF format to be produced in their Native Format in the event that the TIFF format is not reasonably usable. The Requesting Party shall identify the Documents by their Bates numbers and the Documents should be produced in their unaltered Native Format unless it would be unduly burdensome to do so.

4. *Native File Redaction*. To the extent that a native spreadsheet file must be redacted, the Producing Party may elect to either redact the native file or produce TIFF images with burned in redactions in lieu of a Native File and TIFF placeholder image. If redacting TIFF images and to the extent that any of the following can be automated, the Producing Party, or its ediscovery vendor, should make reasonable efforts to: (1) reveal hidden rows, columns, sheets, speaker's notes, or slides prior to converting the Document to TIFF; (2) clear any filters that may conceal information; (3) adjust column widths so that numbers do not appear as "########", (4) ensure that column and row headings print; (5) ensure that the tab name appears in the header or footer of the Document; (6) process comments so that they are produced at the end of the spreadsheet; and (7) process spreadsheets so that they print across, then down. If good cause exists, the Requesting Party may ask the Producing Party to manually undertake the foregoing for limited, certain and specific Documents identified by Bates number by the Requesting Party to the extent the Document was originally produced with concealed information. The Producing Party shall not unreasonably deny such a request. To the extent that audio, video or multimedia files must be redacted, the Producing Party may use industry acceptable software to implement native redactions. Additionally, the Parties may meet and confer regarding how to implement redactions while ensuring that proper formatting and usability are maintained.

5. *Color*. Documents containing color need not be produced in color in the first instance, provided that the Producing Party shall retain a copy of produced hard copy Documents in color. However, if good cause exists for the Requesting Party to request Production of certain Documents in color, the Requesting Party may request Production of limited, certain and specific Documents in color by providing (1) a list of the Bates numbers of Documents it requests to be produced in color format; and (2) an explanation of the need for Production in color format. The Parties will meet and confer in good faith to determine reasonable means by which to reduce the burden of the Producing Party of responding to such a request. The Producing Party shall not unreasonably deny such limited requests.

6. *Email Threading*. The Parties may use Email thread suppression to avoid review of duplicative information, but the Parties' productions must include any suppressed threads that are responsive. The Parties will produce Message ID and Thread ID Metadata to allow

2

a Requesting Party to suppress threads after receipt of a Production. For the sake of clarity, if a Producing Party withholds the most recent Email in a thread based on the grounds of privilege, that party must nevertheless review and produce all other responsive, non-privileged Emails in the thread.

7. *Family Relationships*. Parent-child relationships (*e.g.*, the association between Emails and attachments) will be preserved. Because full families, parents and children (*e.g.*, Emails and corresponding attachments), should be produced together, if a Document within a responsive family is fully withheld, a Bates-stamped, single page TIFF placeholder indicating that it has been withheld should be included as the corresponding image for the withheld file. This information should also be reflected in the Contains Slip Sheet and Slip Sheet Language fields in the .DAT file.

8. *Text and Metadata*. Nothing in this Protocol shall require a Producing Party to create or produce Metadata that does not exist or is not reasonably or technically accessible. The Metadata fields listed in the "Metadata Fields for ESI" table below should be produced in a .DAT Load File with Concordance delimiters, to the extent such Metadata fields are available and not subject to any privilege or other protection. An Opticon formatted image load File must be provided. The image cross-reference file is needed to link the images to the database. It is a comma-delimited file consisting of seven fields per line. There must be a line in the cross-reference file for every image in the database.

The format is as follows:

ImageKey,Volume,ImageFilePath,DocumentBreak,BoxBreak,FolderBreak,PageCount

The fields are, from left to right:

    a. ImageKey – (PROD00001) – This is the unique designation that Relativity uses to identify and retrieve an image. This value must be the same as the Bates number endorsed on each image.
    b. Volume – (VOL01) – The volume identifier – not required
    c. ImageFilePath – (D:\IMAGES\001\PROD00001.TIF) – This is the full path to the image file on the produced storage Media.
    d. DocumentBreak – (Y) – This field is used to delineate the beginning of a new Document. If this field contains the letter "Y," then this is the first page of a Document. If this field is blank, then this page is not the first page of a Document.
    e. BoxBreak – (blank) – Can be used to indicate box, but not required
    f. FolderBreak – (blank) – Can be used to indicate folder, but not required
    g. PageCount - (3) - often used to store page count, but not required

Below is a sample:

```
PROD00001,VOL01,D:\IMAGES\001\PROD00001.TIF,Y,,,3
PROD00002,VOL01,D:\IMAGES\001\PROD00002.TIF,,,,
PROD00003,VOL01,D:\IMAGES\001\PROD00003.TIF,,,,
PROD00004,VOL01,D:\IMAGES\001\PROD00004.TIF,Y,,,2
```

3

PROD00005,VOL01,D:\IMAGES\001\PROD00005.TIF,,,,

Extracted Text of a Document must be delivered on a document level. All text for a single Document should be contained within one file. The name of the file should be the first page of the Document (BEGDOC.txt). If there are non-searchable electronic Documents and the text cannot be extracted, OCR text must be provided for those Documents.

A Concordance\Relativity Load File must be delivered with the requested fields and Metadata as shown in the table below. If specific fields cannot be provided for a particular Document, the field should be left blank. In the case of Email, the Email image will be the parent, and attachment(s) will be the child/children; Email images/parents and attachments/children must be bates numbered consecutively and sorted by Email image/parent followed by attachment/child.

For Production with native files, a NATIVELINK field must be included to provide the file name of the native file on the produced storage Media.

The delimiters for the file must be as follows (Concordance default):
    Comma - ASCII character 20 ("¶")
    Quote - ASCII character 254 ("þ")
    Newline - ASCII character 174 ("®")

Concordance-compatible image and data Load Files should be provided in a "Data" folder.

All associated text (extracted or OCR) should be provided and named after the starting Bates number of the Document. There should be one text file per Document and a link to the text file should be included in the Text Link field within the .DAT file.

The folder structure of the deliverable should follow the below format:
    NYCPROD001 – top level directory which should be unique for every deliverable
        DATA – subdirectory containing Opticon and .DAT Load Files
        IMAGES – subdirectory containing single page TIFF images or color JPGs if requested
        NATIVES – subdirectory containing files provided in Native Format
        TEXT – subdirectory containing .txt files (extracted or OCR)

Metadata Fields for ESI

FIELD NAME	DESCRIPTION	EXAMPLE
Bates Begin	Starting Bates number of file	NYCE00000001
Bates End	Ending Bates number of file	NYCE00000005
Begin Family	Starting Bates number of family	NYCE00000001

4

FIELD NAME	DESCRIPTION	EXAMPLE
End Family	Ending Bates number of family	NYCE00000010
Page Count	Number of pages in the file	6
Native Link	Hyperlink to native file	Z:\VOL001\NATIVES\00\NYCE00 000001.doc
Custodian	E-mail: name of individual's mailbox where the Email resided Native: Individual from whom the Document originated	Doe, John;Smith, Mary;Robinson, Jane
All Custodians	All Custodians of the record, if global deduplication was applied during processing. A revised ALLCUSTODIANS field must be provided in the form of an overlay for any Documents affected by new Custodians added to the database post-Production.	Doe, John;Smith, Mary;Robinson, Jane
File Name	Name of the file	My Meeting.doc
File Extension	Extension of the file	DOC
File Type	Classification assigned by the processing software	Microsoft Word Document
Title	Data stored in the title Metadata field	Agenda for Weekly Meeting
Author	Data stored in the author Metadata field	jdoe
Subject	Subject of the Email or the data stored in the subject Metadata field	Meeting Agenda
From	Email address and display name of the sender of the Email	John Doe <jdoe@company.com>
To	Email address(es) and display name(s) of the recipient(s) of the Email	Frank Smith <frank.smith@mycompany.com>;Jane Doe <jane.doe@mycompany.com>

5

FIELD NAME	DESCRIPTION	EXAMPLE
CC	Email address(es) and display name(s) of the CC(s) of the Email	Joseph Roberts <jroberts@company.com>;Mark Smith <msmith@company.com>
BCC	Email address(es) and display name(s) of the BCC(s) of the Email	Joseph Roberts <jroberts@company.com>;Mark Smith <msmith@company.com>
DateTime Sent	Sent date and time of the Email (24hr format)	09/15/2012 15:30
DateTime Modified	Last modified date and time of the file as captured by the original application or the last modified date of the file as captured by the file system (12hr format)	09/09/2012 09:30
DateTime Created	Created date and time of the file as captured by the original application or the created date of the file as captured by the file system (12hr format)	09/09/2012 09:30
Importance	Importance property of Email	High
Sensitivity	Sensitivity property of Email	Confidential
MD5 hash	MD5 hash of file	D41D8CD98F00B204E9800998ECF 8427E
Family DateTime	Sent date and time of the Email or the last modified date and time of the parent Document	09/15/2012 15:30
Designation	This field will indicate any designations on the image besides the bates number	CONFIDENTIAL
Text Link	Hyperlink to text file	Z:\VOL001\TEXT\00\NYCE000000 01.txt
Message Type	i.e., iMessage, Message, Whatsapp	The message application used
Redaction	Indicates whether redactions have been applied to the Document	Y/N
Redaction Basis		Redacted-[basis for redaction] (e.g., Redacted-PII;

FIELD NAME	DESCRIPTION	EXAMPLE
		Redacted-Privilege)
File Size	Size of the file in kilobytes (KB)	
Message ID	E-mail: "Unique Message ID" field	
Thread ID	Unique identifier for Email or Instant Message thread	
Time Zone	Time zone used when processing data	
SourceFolderPath	Folder path to the original location where the Native File or Image File converted from Native File was kept in the ordinary course of business	

9. *Hidden Content.* Files with hidden content, tracked changes, revisions, comments, or notes should be imaged with such content viewable.

10. *Deduplication.* To the extent not unduly burdensome, a Producing Party shall globally deduplicate by exact duplicate families by identifying (i) exact hash duplicates based on MD5 or SHA-1 hash values; (ii) for Instant Message files, where the values in the following Metadata fields match exactly: (1) Chat RoomID/PCHAT Number/InstmgID, (2) Conversation start date and time, (3) Conversation end date and time, and (4) Participant Count /Number of Participants; or (iii) for Instant Message files, an event entry by event entry deduplication where the event text as well as the values in the following Metadata fields match exactly: (1) Chat RoomID/PCHAT Number/InstmgID, (2) Event participant, (3) Event date/timestamp, and (4) Type of event. The Producing Party shall identify the additional Custodians in an AllCustodian Metadata field. Deduplication shall be performed only at the Document family level so that attachments are not deduplicated against identical stand-alone versions of such Documents and vice versa, although each family member shall be hashed separately. Attachments to Emails, Instant Messages or other Documents shall not be disassociated from the parent Email, Instant Message or Document even if they are exact duplicates of another Document in the production. An Email that includes content in the BCC or other blind copy fields shall not be treated as a duplicate of an Email that does not include content in the BCC or other blind copy field, even if all remaining content in the Email is identical. Any Party opting to deduplicate in a different manner from the foregoing procedure shall disclose their deduplication methodology to the Requesting Party prior to deduplication. If the Requesting Party objects to the methodology, it shall timely raise those concerns with the Producing Party. If a Party opts not to deduplicate, it shall disclose such fact to the Requesting Party prior to Production of such non-deduplicated data.

7

11. *Embedded Documents.* A Producing Party may exclude non-substantive embedded files (*e.g.*, company logos, signature blocks) from Production. Substantive embedded files (*e.g.*, Word or PDF Documents embedded in Excel spreadsheets) in Responsive Documents shall be extracted during processing and produced as separate, attached Documents, within the same family as the Document from which they were extracted and maintaining the family relationship. A Producing Party shall either (i) identify embedded files as Document family members of the source file from which the embedded file is extracted, or (ii) produce a placeholder TIFF image in place of each such embedded file that could not be extracted. To the extent that extracting substantive embedded files from a parent-Document would be unduly burdensome, a Producing Party may instead produce the parent-Document in Native Format with accessible embedded files.

12. *Searchable Text.* Text must be extracted directly from the native electronic file of ESI unless the Document requires redaction, is an image file, or is any other native electronic file that does not contain text to extract (e.g., non-searchable PDFs), in which case Searchable Text shall be created using OCR, if possible. Extracted Text shall include all comments, revisions, tracked changes, speaker's notes and text from Documents with comments or tracked changes, and hidden worksheets, slides, columns and rows. Extracted Text from Emails shall include all header information that would be visible if the Email was viewed natively including: (1) the recipients(s), (2) the sender, (3) the CC and BCC recipients, (4) the subject line, (5) the date and time of the Email, and (6) the names of any attachments.

13. *Password Protected Files.* The Parties will make reasonable efforts to ensure that all encrypted or password-protected Documents and ESI are successfully processed for review and Production in a manner that allows such Documents and ESI to be accessed and reviewed by the Requesting Party. To the extent encrypted or password-protected Documents are successfully processed, the Parties have no duty to identify further the prior encrypted status of such Documents. To the extent such Documents are not successfully processed despite use of reasonable efforts, a placeholder TIFF image may be produced in place of each such Document indicating that security protection could not be removed, so long as a slipsheet is provided flagging to the Requesting Party that the security protection could not be removed. Upon request from the Requesting Party, the Parties shall meet and confer in good faith regarding reasonable efforts or mechanisms to remove such security protection or the Production of available Metadata.

14. *Third-Party Software.* To the extent that documents produced cannot be rendered or viewed without the use of proprietary third-party software, the Parties shall meet and confer to minimize any expense or burden associated with the production of such documents in an acceptable format including issues as may arise with respect to obtaining access to any such software and operating manuals which are the property of a third party.

15. *Date Format.* Dates and times should be concatenated into a single field, with a format of MM/dd/YYYY HH:MM. If a time is not available, such as the estimate date for a coded Document, then 12:00 am, or 00:00 should be assigned, *e.g.*, 12/21/1999 00:00. Date delimiters, such as slashes and colons, must be consistent across all fields. In the format of MM/dd/YYYY, there are no spaces and only forward slashes. Date formats must be

8

consistent within any one field. Date formats must be consistent across all fields, *i.e.*, a record with a sent date should have the same format in the last modified date field. The Producing Parties shall make reasonable efforts to process all ESI using Eastern Standard Time ("EST"). No Party will be required to re-process any ESI that has been processed prior to the date of this Order for purposes of complying with this provision.

16. *Production Media*. The Producing Party shall produce Document images, Native Format files, Load Files (including Extracted Text / OCR text), and Metadata on hard drives, CDs, DVDs, secure FTP, or other mutually agreeable media ("Production Media"). Each piece of Production Media shall include a unique identifying label corresponding to the identity of the Producing Party, the date of the production of Documents on the Production Media and the Bates range of the Documents in that production (e.g., "Plfs' Production May 1, 2019, PartyNameFX00000123 – PartyNameFX00000456"). To the extent that the Production Media includes any confidential information protected under any Confidentiality Order filed with the Court, the label on such Production Media shall indicate that the Production Media includes information so designated as required under the terms of the Confidentiality Order. Production Media labels shall include text referencing the case name and number. All Production Media that is capable of write protection should be write-protected before production. All Production Media may be encrypted, with the Producing Party to provide a decryption key at the time of production.

17. *Supplemental Production Overlays*. If the Producing Party makes supplemental Productions following an initial Production, that Producing Party also shall, if necessary, provide before the end of all production, a supplemental Production overlay file to allow the Requesting Party to update the ALL_CUSTODIANS field. The overlay file shall include all Custodians listed in the ALL_CUSTODIANS field in prior Productions and any Custodians newly identified in the supplemental Production(s).

9